UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/767,108	01/28/2004	John F. Aker	4213-104	4422

23448 7590 04/08/2008
INTELLECTUAL PROPERTY / TECHNOLOGY LAW
PO BOX 14329
RESEARCH TRIANGLE PARK, NC 27709

EXAMINER	
MERCADO, JULIAN A	

ART UNIT	PAPER NUMBER
1795	

MAIL DATE	DELIVERY MODE
04/08/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/767,108	AKER ET AL.	
	Examiner	Art Unit	
	JULIAN MERCADO	1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 February 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-33* is/are pending in the application.

4a) Of the above claim(s) *3,4,12,18 and 20-33* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,5-10,13-16 and 19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *1-26-06, 4-15-04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Claims 20-33 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on February 11, 2008.

Additionally, claims 3, 4, 12 and 18 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election of claims 1, 2, 4-10, 12-16, 18 and 19 was made **without** traverse in the reply filed on February 11, 2008, however, the examiner notes that claims 4, 12 and 18 are not considered readable on species (1) as these claims additionally recite limitations drawn to species (2).

Claims 1, 2, 5-10, 13-16 and 19 are pending for consideration.

Information Disclosure Statement

The Information Disclosure Statement (IDS) filed on January 26, 2006 and April 15, 2004 has been considered by the examiner with the following exceptions:

1. U.S. Pat. 6,459,014 as cited in the January 26, 2006 IDS has not been considered; it appears to the examiner that the intended document may have been incorrectly cited, as this patent is drawn to an absorbent pad/diaper. If applicant advises the examiner of the correct patent No., the examiner will reconsider the January 26, 2006 IDS and make the appropriate corrections thereto on applicant's behalf.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 2, 5-10, 13-16 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "fast charging" in claim 1 is a relative term which renders the claim indefinite. The term "fast" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. This term has been given its broadest reasonable interpretation in a manner not inconsistent with the specification.

Claims 2, 5-10, 13-16 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being dependent upon a rejected base claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 5-10, 13, 15, 16 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Hamada et al. (U.S. Pat. 5,800,942).

For claims 1, 2, 5, and 6, Hamada et al. teaches a thermal management system for high-capacity battery cooling; the examiner notes that with respect to the term "high-capacity battery" which is defined in the specification as a battery having a capacity of 100 ampere-hours, Hamada et al. teaches such a battery in col. 7 line 64 et seq., "a nickel-hydrogen alkaline storage battery of a 100 amp-hr capacity...." The battery has a cooling gas motive driver [26], e.g. "sirocco fan", which directs cooling gas thereto in a downward direction. See Figure 17 and its accompanying description throughout the reference, including col. 14 line 53 et seq. With respect to the claimed cooling of the battery "during at least one of (a) fast charging of the battery, and (b) use of the battery generating heat...", this limitation has not been given patentable weight, as it is considered drawn to an intended-use limitation which does not further limit the claimed thermal management system in terms of structure. Notwithstanding, Hamada et al. specifically disclose cooling of the battery both during its charging and during discharging. See col. 3 line 19 et seq. and col. 5 line 62 to col. 6 line 20.

Claims 7-10 recite limitations drawn to a type of vehicle the claimed thermal management system is to be mounted on. These limitations have not been given patentable weight, as they are considered drawn to limitations of intended use which fail to further limit the claimed thermal management system insofar as reciting features drawn to the combination (vehicles using the claimed thermal management system), while the preamble of the claims are drawn to the subcombination, i.e. the thermal management system. The examiner notes, however (as will be discussed for claims 15 and 16), that Hamada et al. teaches the thermal management system in a vehicular application.

For claim 13, the cooling gas motive driver is mounted on a plate member [24] overlying the high-capacity battery, as shown in Figure 17.

For claims 15 and 16, a battery-powered vehicle, such as an "electric motorcar", includes the claimed thermal management system. See col. 14 line 64 et seq.

For claim 19, an array of the high-capacity batteries [1] is shown in Figures 24 and 25.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hamada et al. (U.S. Pat. 5,800,942).

The teachings of Hamada et al. are discussed above.

Hamada et al. does not explicitly teach multiple down-flow fans. However, the skilled artisan would find obvious without undue experimentation to employ multiple fans in Hamada et al. It is asserted that the mere duplication of parts has no patentable significance unless a new and unexpected result is produced. *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960)

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian Mercado whose telephone number is (571) 272-1289. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan, can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

/J. M./
Examiner, Art Unit 1795

/PATRICK RYAN/
Supervisory Patent Examiner, Art Unit 1795